

REMARKS

Claims 10-15 are all the claims pending in the application.

I. Allowable Subject Matter:

At numbered paragraph 3 of the Office Action, the Examiner indicates that claim 12 would be allowable if it were rewritten in independent form. Applicants rewrite claim 12 as suggested. Therefore, the Examiner should allow claim 12 in the next Patent Office paper.

II. Claim Rejections on Prior Art Grounds:

The Examiner rejects claims 10, 11, and 13-15 under 35 U.S.C. § 102(e) as being anticipated by U.S. 6,516, 239 to Madden et al. ("Madden"). Applicants respectfully traverse this rejection in view of the following remarks.

A. Independent Claim 10 – The Method:

Independent claim 10 defines (among other things) a transfer sequence determination that involves:

transferring a subsequent one of the products to the single feed line, the subsequent one of the products having address information in a predetermined relationship to the preceding address information. (emphasis added).

An exemplary, non-limiting embodiment of the claimed transfer sequence determination will be appreciated with reference to Figs. 17 and 18, which are discussed in the specification beginning with the second full paragraph of page 25. Consider Fig. 17, which schematically depicts a process of the first transfer unit 1110A (or first transfer means). Assume that the slit data a2 of

the memory area ME15 includes address information of the roll 30c depicted in Fig. 14 (Step S8A). This would indicate that the roll 30c is presently positioned in the first transfer unit 1110A.

Before the roll 30c is transferred to the main feed unit 1108, the controller 1506 first checks to see if the header a1 of the memory area ME16 includes address information of the roll 30b (Step S9A). This would indicate that the roll 30b (or preceding product) has been previously transferred by the second transfer unit 1110B (or second transfer means). Once the condition of Step S9A is satisfied, then the first transfer unit 1110A transfers the roll 30c (or subsequent product) to the main fee unit 1108. Fig. 18 schematically depicts a process of the second transfer unit 1110B, which functions in a similar fashion.

In this way, a subsequent product (e.g., roll 30c), which has address information (e.g., block 1, slit 3) in a *predetermined relationship* to the preceding address information (e.g., block 1, slit 2) can be reliably transferred to the main feed line 1108. In the example above, the “*predetermined relationship*” is an increment of one for the slit number. Thus, the determination ensures that for a particular block number, the rolls 30a-30d are transferred to the main feed line 1108 in slit number order (i.e., block 1, slit 1 (roll 30a); block 1, slit 2 (roll 30b); block 1, slit 3 (roll 30c); and block 1, slit 4 (roll 30d), as shown in Fig. 14). At least this feature (as defined by claim 10), in combination with the other limitations of claim 10, is not taught or suggested by the prior art relied upon by the rejection grounds.

Madden

The rejection grounds look to Madden to teach each and every feature of the invention defined by claim 10. Applicants respectfully submit, however, that the heavy reliance upon Madden is misplaced.

Madden discloses an assembly line control system for the manufacture of vehicles. The assembly line 10, which is schematically shown in Fig. 1C, includes a Painted Body Storage Area ("PBSA") 100A and an Assembly Body Storage Area ("ABSA") 100B. As shown in Figs. 1A and 1B, each of the PBSA 100A and the ABSA 100B includes processing stations that control the movement of the vehicles along a plurality of lanes. Some of the processing stations do control the movement of vehicles fed from a plurality of lanes to one single lane. For example, in the PBSA 100A depicted in Fig. 1A, the processing station 112 controls the transfer of vehicles fed from a plurality of temporary storage lanes 110A-E onto a single lane 114. And in the ABSA 100B depicted in Fig. 1B, the processing station 184 controls the transfer of vehicles fed from a shunt lane 180 and a storage lane 182 onto a single lane 186. In sharp contrast to the present invention, however, the vehicle transfer determination does not take into consideration any information about a preceding vehicle, which has been previously supplied to single lanes 114 or 186. Madden's disclosure is straightforward in this regard.

The Processing Stations 112: The processing station 112 performs the processing technique schematically depicted in Fig. 5. As clearly shown in Fig. 5, the processing technique involves considering either (1) the status vehicles at the heads of the storage lanes 110A-E (see

steps S502, S508, S514, S516), or (2) the status of vehicles in the storage lanes 110A-E positioned behind the vehicles at the heads of the storage lanes 110A-E (see step S506).¹ None of the vehicles in the storage lanes 110A-E are “*preceding vehicles*” to the extent that they have not yet been transferred to the single lane 114.

The Processing Station 184: The processing stations 184 performs the processing technique schematically depicted in Fig. 14. As clearly shown in Fig. 14, the processing technique involves considering the status of vehicles at the heads of the lanes 180, 182 (see step S1402). None of the vehicles in the lanes 180, 182 are “*preceding vehicles*” to the extent that they have not yet been transferred to the single lane 186.

In short, Madden discloses a technique of transferring vehicles fed from a plurality of lanes to a single lane. However, the technique does not involve transferring a subsequent vehicle that has address information in a “predetermined relationship” to the preceding address information. Indeed, as noted above, Madden’s transfer determination is based exclusively on the status of the vehicles that are in front of the pertinent processing stations (i.e., processing stations 112 and 184). Certainly then, claim 10 recites features that are practically and conceptually different than Madden.

¹ Madden, col. 18, l. 57 – col. 19, l. 46.

B. Independent Claim 13 – The Apparatus:

Independent claim 13, which is directed to an apparatus, recites (albeit in a different format) a similar transfer sequence determination to the one required by claim 10. Namely, claim 13 recites (among other things):

product selecting means for selecting a subsequent one of said products to be transferred to said single feed line, said subsequent one of said products having address information in a predetermined relationship to said preceding address information.

That is, the transfer sequence determination is written in a means-plus-function format.

Consequently, claim 13 is believed to be patentable for reasons analogous to those noted above with respect to claim 10.


For these reasons, Applicants respectfully submit that claims 10 and 13 are patentable, and that claims 11, 14, and 15 are patentable at least by virtue of their dependencies.



AMENDMENT UNDER 37 C.F.R. § 1.116
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Respectfully submitted,



Ray Heflin
Registration No. 41,060

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860



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